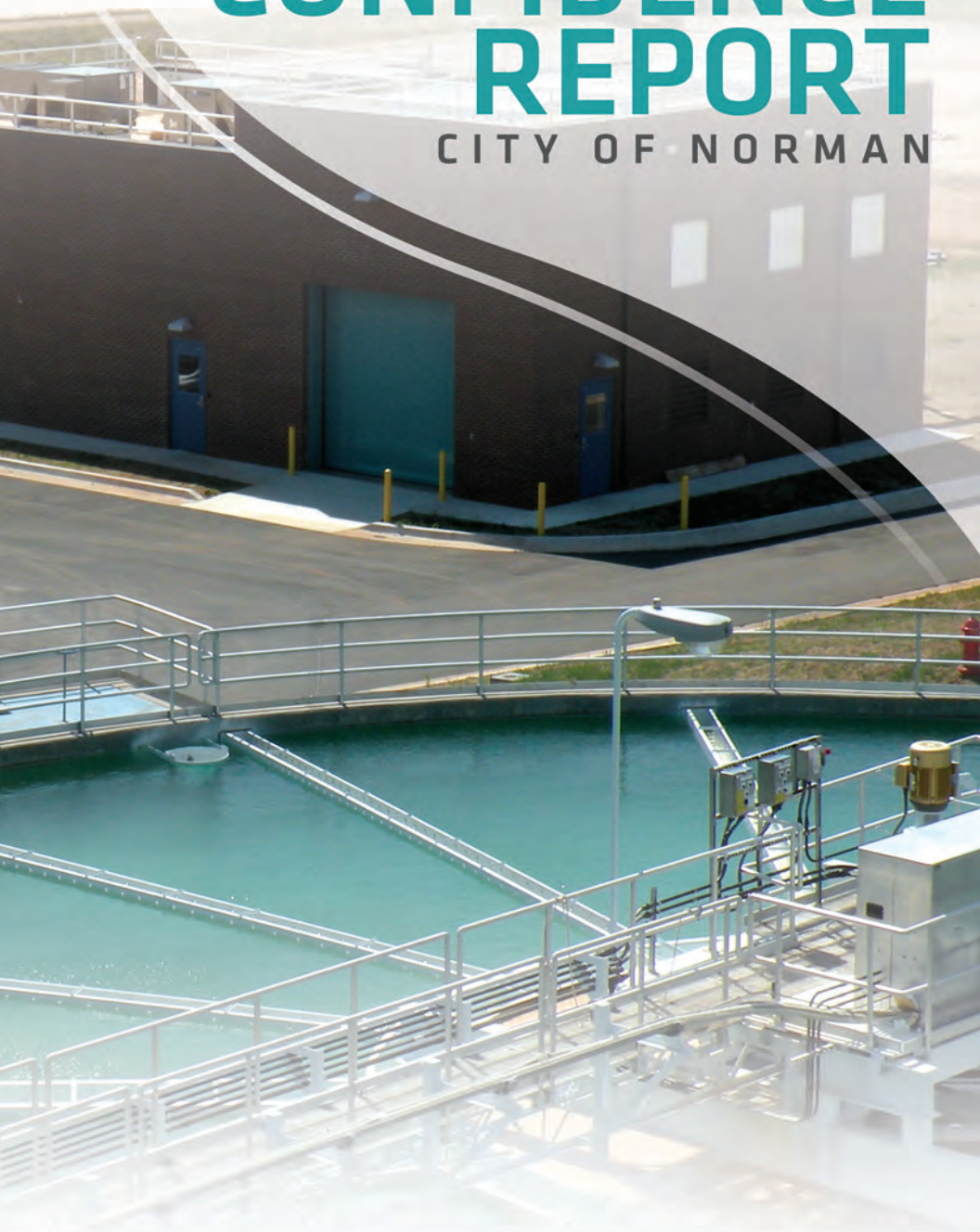


# CONSUMER CONFIDENCE REPORT

CITY OF NORMAN



## A NOTE ABOUT CHROMIUM

In December 2010 the Environmental Working Group (EWG) issued a report concerning reported levels of hexavalent chromium in water supplies throughout the United States and Norman was among the cities mentioned. As you have probably heard several times since then but it is worth repeating, **the City of Norman is committed to providing water that is safe to drink for all members of our community and protective of public health.** The level of chromium that naturally occurs in Norman drinking water remains well below the threshold established by the EPA. Our water is completely safe to drink.

The City of Norman formed the Chromium 6 Working Group made up of appointed and elected officials and Technical Advisory Committee with committee members consisting of University of Oklahoma professors specializing in Public Health, Environmental Engineering, Civil Engineering, Geology, Anthropology, and Chemistry to examine this issue and make an informative third party assessment. Their findings to date are that as analytical testing methods improve in detecting micro constituents contained in our water supplies, further scientific studies are necessary to investigate the possible positive or negative effects it might have on the human body. At these minuscule concentrations, there is no concrete evidence to alarm the public over consumption whether it is from vegetables, food, or water. No long term studies exist because the technology to quantify or detect these extremely low levels has only become available within the last few years.

To date, public water systems are required to periodically test for total chromium in accordance with requirements of the Oklahoma Department of Environmental Quality (ODEQ) and the United States Environmental Protection Agency (EPA). Total chromium is regulated by the EPA as a primary drinking water contaminant with a maximum contaminant level (MCL) of 100 ug/l (parts per billion or ppb) total chromium includes Chromium VI, and other states of elemental chromium. This level of protection was set by the EPA in 1992 based on the best available science to prevent potential health problems. Chromium testing is reported annually to our customers in our Consumer Confidence Report (CCR) and you will find the information in the tables on this years' CCR.

The Water Research Foundation issued this response

to EWG (Environmental Working Group) press releases about hexavalent chromium in drinking water:

"It's disconcerting that an organization such as EWG would risk creating public fear and hysteria about drinking water, let alone publicly insinuate that there is a massive conspiracy by water providers in a nationwide cover up. It's reckless and irresponsible for any entity purporting to serve a scientific purpose. Although significantly downplayed, even EWG's own press release indicates that there is a major difference between detection of a substance in source water and what comes through the tap in people's homes."

The EPA issued the following in response to the issue of regulating hexavalent chromium in drinking water:

"EPA absolutely has a drinking water standard for total chromium, which includes chromium-6 (also known as Hexavalent Chromium), and we require water systems to test for it. This standard is based on the best available science and is enforceable by law. Ensuring safe drinking water for all Americans is a top priority for EPA. The agency regularly re-evaluates drinking water standards and, based on new science on chromium-6, had already begun a rigorous and comprehensive review of its health effects. In September, we released a draft of that scientific review for public comment. When this human health assessment is finalized in 2011, EPA will carefully review the conclusions and consider all relevant information, including the Environmental Working Group's study, to determine if a new standard needs to be set."

While EPA conducts this important evaluation, the agency believes more information is needed on the presence of chromium-6 in drinking water. For that reason, EPA is providing guidance to all public water systems and encouraging them to consider how they may enhance their monitoring for chromium-6. The new EPA guidance provided to drinking water systems can be found at the following link:

<http://water.epa.gov/drink/info/chromium/guidance.cfm>

The following EPA link provides typical questions and answers regarding chromium in drinking water.

<http://water.epa.gov/drink/contaminants/basicinformation/chromium.cfm>

### Water Quality Parameters

	WTP	Water Wells & OKC	Units
<b>Total Hardness</b>	<b>88 to 100</b>	<b>50 to 200</b>	<b>mg/L as CaCO<sub>3</sub></b>
<b>Calcium Hardness</b>	<b>45 to 55</b>	<b>20 to 100</b>	<b>mg/L as CaCO<sub>3</sub></b>
<b>Magnesium Hardness</b>	<b>45 to 65</b>	<b>30 to 100</b>	<b>mg/L as CaCO<sub>3</sub></b>
<b>Total Alkalinity</b>	<b>80 to 100</b>	<b>110 to 350</b>	<b>mg/L as CaCO<sub>3</sub></b>
<b>Chloride</b>	<b>30 to 35</b>	<b>10 to 15</b>	<b>mg/L</b>
<b>pH</b>	<b>8.7 to 9.2</b>	<b>7.1 to 9.0</b>	<b>pH Units</b>
<b>Total dissolved Solids</b>	<b>120 to 130</b>	<b>200 to 500</b>	<b>mg/L</b>
<b>Fluoride</b>	<b>0.9 to 1.1</b>	<b>0.1 to 1</b>	<b>mg/L</b>
<b>Chloramine Residual</b>	<b>2.5 to 3.0</b>	<b>0 to 4.0</b>	<b>mg/L</b>
<b>Aluminum</b>	<b>0.8-1.0</b>	<b>No Data</b>	<b>mg/L</b>
<b>Temperature</b>	<b>4-28</b>	<b>1.8-25</b>	<b>°C</b>

## RECYCLE NORMAN

The City of Norman, in partnership with Waste Management, is proud to announce that curbside recycling commenced March 3, 2008. Waste Management is collecting recyclable materials placed in the bin provided on the same day as your scheduled trash service.

## RECYCLING CENTER LOCATIONS

- **HOLLYWOOD SHOPPING CENTER (MCGEE AND LINDSEY)**
- **HOBBY LOBBY (24TH NW AND MAIN)**
- **CLEVELAND COUNTY FAIRGROUNDS (1499 N. PORTER AVE. NORTH OF ROBINSON)**

FOR MORE INFORMATION ON WHAT CAN BE RECYCLED YOU CAN VISIT THE CITY'S WEBSITE, **WWW.NORMANOK.GOV** OR CALL THE SANITATION DEPARTMENT AT 329-1023

VISIT **WWW.GREENNORMAN.ORG** FOR CURRENT INFORMATION

## HOUSEHOLD HAZARDOUS WASTE DISPOSAL OPTIONS IN NORMAN (AND MORE)

The following are addresses and phone numbers of those agencies and businesses that accept certain hazardous waste products. For additional information call the City of Norman Environmental Services office at 292-9731 or log onto [GreenNorman.gov](http://GreenNorman.gov).

### ANTIFREEZE

#### CITY OF NORMAN TRANSFER STATION

3901 S. Chautauqua  
292-9776

#### FAST LANES OF AMERICA

1235 W. Main St., 321-5260

#### FIRESTONE

1250 NW 36th Ave., 360-3363

#### HIBDON TIRE CENTERS

221 N. Interstate Dr., 360-3220

#### JIFFY LUBE

1203 E. Alameda, 321-5208  
1025 NW 24th Ave., 329-8434

#### KWIK KAR

2400 W. Main St., 329-5945

#### OK FAST LUBE

2201 W. Lindsey St., 321-6869

#### VALVOLINE INSTANT OIL CHANGE

2000 W. Main St., 329-2531

### AUTOMOTIVE BATTERIES

#### AUTO ZONE

2020 W. Main, 360-2000  
1301 12th Ave. SE, 447-9981

#### BATTERY CENTER

606 N. Porter, 321-0309  
Firestone  
1250 NW 36th Ave., 360-3363

#### HIBDON TIRE CENTERS

221 N. Interstate Dr., 360-3220

#### O'REILLY AUTO PARTS

131 12th Ave. NE, 321-7981  
2113 W. Lindsey, 573-0669

#### PALACE AUTO SUPPLY

340 24th Ave. NW, 321-8019

#### WAL-MART,

333 N. Interstate Dr., 579-1268

### RECHARGEABLE BATTERIES

#### BATTERY CENTER

606 N. Porter, 321-0309

#### CITY OF NORMAN

201 W. Gray, Building C, foyer on east side, 292-9731

#### INTERSTATE ALL BATTERY CENTER

1065 36th Ave., 701-1313

#### LOWE'S

2555 Hemphill Dr., 329-2009

#### RADIO SACK

3319 W. Main (Sooner Mall), 360-2513  
740 W. Main, 321-5524

### CELL PHONES

#### CITY OF NORMAN

201 W. Gray, Building C, Foyer on east side, 292-9731

#### RADIO SHACK

3319 W. Main (Sooner Mall), 360-2513  
740 W. Main, 321-5524

### COMPACT FLUORESCENT BULBS

#### HOME DEPOT

850 Ed Noble Parkway, 579-7700

#### LOWE'S

2555 Hemphill Dr., 329-2009

#### OEC

242 NW 24th Ave., 321-2024

### E-WASTE

#### BEST BUY

400 NW 26th Avenue, 573-9613

#### OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

702-5100  
<http://www.deq.state.ok.us/lpdnew/ewasteindex.html>

### FATS, OILS, & GREASE (FOG)

#### CITY OF NORMAN TRANSFER STATION

3901 S. Chautauqua, 292-9776

### MOTOR OIL

#### CITY OF NORMAN TRANSFER STATION

3901 S. Chautauqua, 292-9776

#### AUTO ZONE (LIMIT FIVE GALLONS)

2020 W. Main, 360-2000  
1301 12th Ave. SE, 447-9981

#### FAST LANES OF AMERICA

1235 W. Main, 321-5260

#### FIRESTONE

1250 NW 36th Ave., 360-3363

#### HIBDON TIRE CENTERS

221 N. Interstate Dr., 360-3220

#### JIFFY LUBE

1203 E. Alameda, 321-5208  
1025 NW 24th Ave., 329-8434

#### KWIK KAR

2400 W. Main St., 329-5945

#### OK FAST LUBE

2201 W. Lindsey St., 321-6869

#### O'REILLY AUTO PARTS

131 12th Ave. NE, 321-7981  
2113 W. Lindsey, 573-0669

#### VALVOLINE INSTANT OIL CHANGE

2000 W. Main, 329-2531

#### WAL-MART

333 N. Interstate Dr., 579-1268  
601 12th Ave. NE, 579-5203

### PACKAGING MATERIALS

#### BUDGET BOX & BAG (peanuts only)

558 W. Main St., 360-3025

#### MERCURY POST & PARCEL (peanuts only)

121 NW 24th Ave., 360-0990

#### POSTNET (no preformed solid Styrofoam)

1108 W. Main St, 364-5005

#### THE UPS STORE (peanuts only)

3334 W. Main St., 364-1109

### PLASTIC BAGS

#### HOMELAND

2600 W. Robinson, 321-1313

#### LOWE'S

2555 Hemphill Dr., 329-2009

#### WAL-MART

333 N. Interstate Dr., 579-1268  
601 12th Ave. NE, 579-5203

### TIRES

#### CITY OF NORMAN TRANSFER STATION

3901 S. Chautauqua, 292-9776

#### HIBDON TIRE CENTERS

221 N. Interstate Dr., 360-3220

#### WAL-MART

333 N. Interstate Dr., 579-1268  
601 12th Ave. NE, 579-5203

### COMMERCIAL HHW COMPANIES

#### BOOMER ENVIRONMENTAL

Oklahoma City, 417-3333

#### ENVIRONMENTAL MANAGEMENT

Guthrie, 282-8510

## HOUSEHOLD HAZARDOUS WASTE

The City of Norman held its 13th annual household hazardous waste collection event April 9th 2011. This is an event where Norman residents can take their hazardous waste, so it can be recycled or reused, preventing it from being sent to the landfill or being poured into the sanitary or storm sewer. We had 1,630 cars come to this 5 hour event, bringing in 34,856 pounds of chemicals, 6,900 pounds of used motor oil, 2,202 pounds of antifreeze, 22,441 pounds of latex paint, and 29,502 pounds of oil-based paint. We also collected approximately 42,582 pounds of electronics (computers, TV's, etc.) 183 florescent lights, 721 tires, 400 automotive batteries, and 130 old appliances. That is a lot of waste that was prevented from polluting our environment.

Used petroleum oil, used oil filters, used antifreeze, cooking oil and tires are collected at the transfer station –

### 3901 S. Chautauqua.

Rechargeable batteries are collected at the City's Municipal Complex 201 W. Gray. There is no charge to the citizens of Norman for proper disposal of these items.

## FOR MORE INFORMATION

The Norman Utilities Authority members are also the elected mayor and City Council members. Their meetings are held at the same time as City Council meetings and are open to the public.

### Meeting schedule:

Second and fourth Tuesday of each month at City Hall, beginning at 6:30 p.m.

### The City of Norman Web Site

[www.normanok.gov](http://www.normanok.gov)

### Vernon Campbell Water Treatment Plant

For Questions Regarding Water Quality Phone (405) 321-2182

### Superintendent of Water Treatment

Chris Mattingly

- E-mail: [chris.mattingly@normanok.gov](mailto:chris.mattingly@normanok.gov)

### Supervisor of Water Treatment

Bryan Hapke

- E-mail: [bryan.hapke@normanok.gov](mailto:bryan.hapke@normanok.gov)

### Laboratory Manager

Geri Wellborn

- E-mail: [geri.wellborn@normanok.gov](mailto:geri.wellborn@normanok.gov)

### For Questions Regarding City Services

The Action Center

Phone (405) 366-5396 • E-mail: [action.center@normanok.gov](mailto:action.center@normanok.gov)

### Customer Service/Billing

(405) 366-5320

### Water/Sewer Emergency

(405) 329-0703 (Daytime)

(405) 321-1600 (After hours)

## MAYOR'S LETTER

### To Our Citizens

The Norman Utilities Authority is working to diligently provide services our citizens need and expect. We must be good stewards of our existing infrastructure and plan for our children and grandchildren's future.

Phase I of the Water Treatment Plant rehabilitation was completed this past year with assistance from an ARRA loan and grant (stimulus funds) which saved our customers millions of dollars. We are replacing water and wastewater lines that are old or undersized. Phase II will include changes to the disinfection process to meet new state requirements and to address the removal of personal care products and pharmaceuticals. These improvements unfortunately must be delayed as a result of the voters' rejection of the water rate increase.

Across the city, we are working to insure superior water quality. The Association of Municipal Water Agencies (AMWA) recently recognized Norman as a positive example in dealing with the evolving science surrounding the regulation of Chromium 6. City staff, citizens and the Council must work together to ensure policies which protect Lake Thunderbird, our principal water supply, from further storm water pollution.

The historic drought conditions facing the region present special challenges. In the coming year, we will update our 'Strategic Water Supply Plan' that was written in 2001. Norman also continues its leadership in advocating with the Oklahoma Municipal League, the Department of Environmental Quality and the Legislature to develop water reuse policies.

Conservation will continue to be a priority. The Griffin Park project (pond and new irrigation system) allows watering of all of the sports fields without using potable water. The City Council is updating its city-wide conservation policies and taking steps to eliminate using potable water where non-potable water can do the job.

The future is very uncertain. Our community must look for additional supplies, and we are exploring all options in cooperative discussions with other central Oklahoma cities. The State of Oklahoma is working on a water master plan that will help Oklahoma protect its natural resources and plan for water needs into the future.

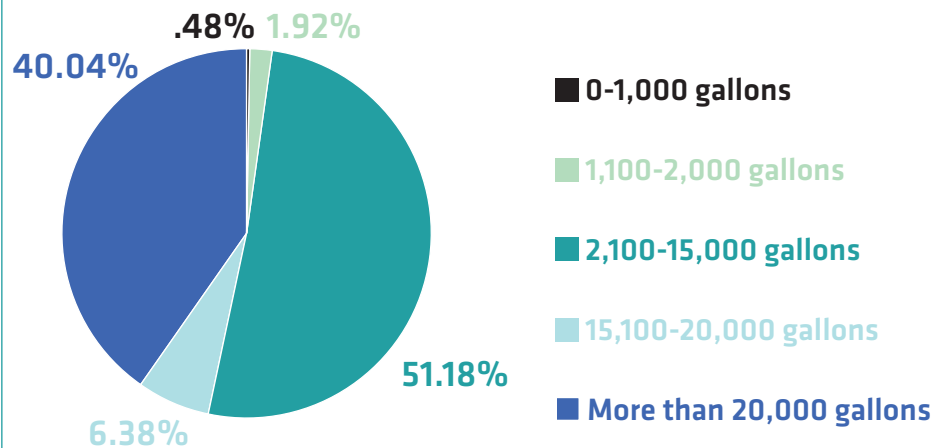
As we plan for the future of our community, we must simultaneously protect our natural resources. I encourage you to read this brochure and consider how we impact water consumption and conservation.



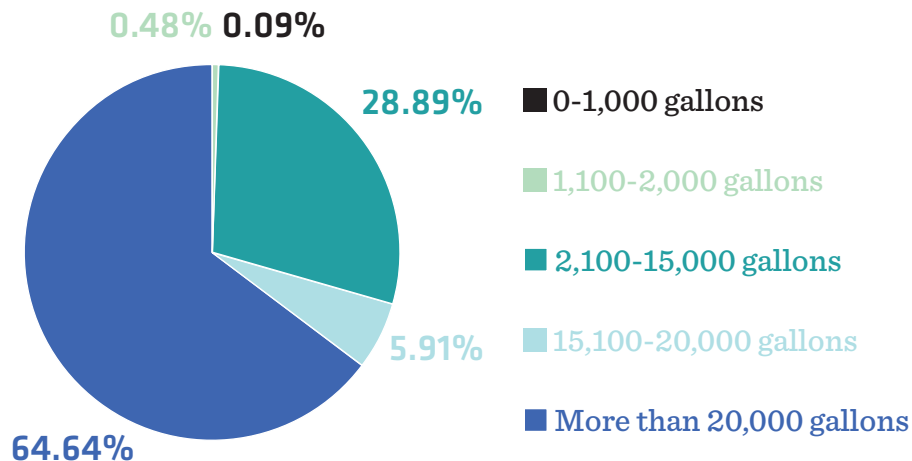
**Mayor Cindy Rosenthal**  
Chairman Norman Utility Authority

## AVERAGE RATE DRIVEN HOUSEHOLD WATER CONSUMPTION

### AVERAGE WATER USAGE 2010



### AVERAGE WATER USAGE 1998



## A NOTE ABOUT ARSENIC

Arsenic is a naturally occurring mineral present in the Garber-Wellington Aquifer. In Norman's case, its presence in our groundwater results from the erosion of natural deposits accumulated during the formation of the aquifer millions of years ago. Contamination by man is not to blame; only nature gets credit for its presence in our water.

The U.S. Environmental Protection Agency defines the maximum contaminant level (MCL) at 10 parts per billion (ppb) for arsenic. The City of Norman is in compliance with the 10 ppb MCL. The Utility Authority is currently drilling 15 replacement wells that will provide Norman with drinking water that meets all of the EPA guidelines for safe drinking water.

While your drinking water meets EPA's standard, it does contain low levels of arsenic. EPA's standard balances the current understanding of arsenic's possible health effects against the cost of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is known to cause cancer at high concentrations and is linked to other health effects, such as skin damage and circulatory problems.

Some people who drink water containing arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system and may have an increased risk of getting cancer.

### Safe Water for Norman

#### Disinfection

Norman uses a combination of chlorine and ammonia to disinfect the water being treated from Lake Thunderbird. This process produces a chlorine residual that travels throughout Norman's water distribution system. The presence of chlorine protects our system from bacterial growth. Well water is naturally free of harmful bacteria and does not require chlorination.

#### About source water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at (800) 426-4791.

### Advisory note from the EPA

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Center for Disease Control guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

### Contaminants That May Be Present in Source Water Before Treatment Include:

#### Microbial Contaminants

such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

#### Inorganic Compounds

such as salts and metals, which can occur naturally or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

#### Pesticides and Herbicides

which may come from a variety of sources, such as agricultural and residential uses.

#### Radioactive Contaminants

which occur naturally.

#### Organic Chemical Contaminants

including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production and can also come from gas stations, urban storm water runoff and septic systems.

## WATER PRODUCTION 2010

In 2010, Norman observed a 124.5% increase in water production in August (the peak month) compared to February (the minimum month). The majority of this difference is the result of lifestyle changes associated with seasonal usage including landscape irrigation.

In 2010, total water production during the peak month of August was an average of 19.03 million gallons per day. Peak day usage occurred on August 9th, when 22.24 million gallons of water was produced. This equated to 227 gallons per person on this day. The minimum day usage was 76 gallons per person per day was on November 25th. For 2010 the average usage was 124 gallons per person per day.

During 2010, the Oklahoma City treated water supply line was used to produce 60.9 million gallons. In 2010, Norman utilized 85.6 percent of its permitted allocation from Lake Thunderbird. Staff made a concerted

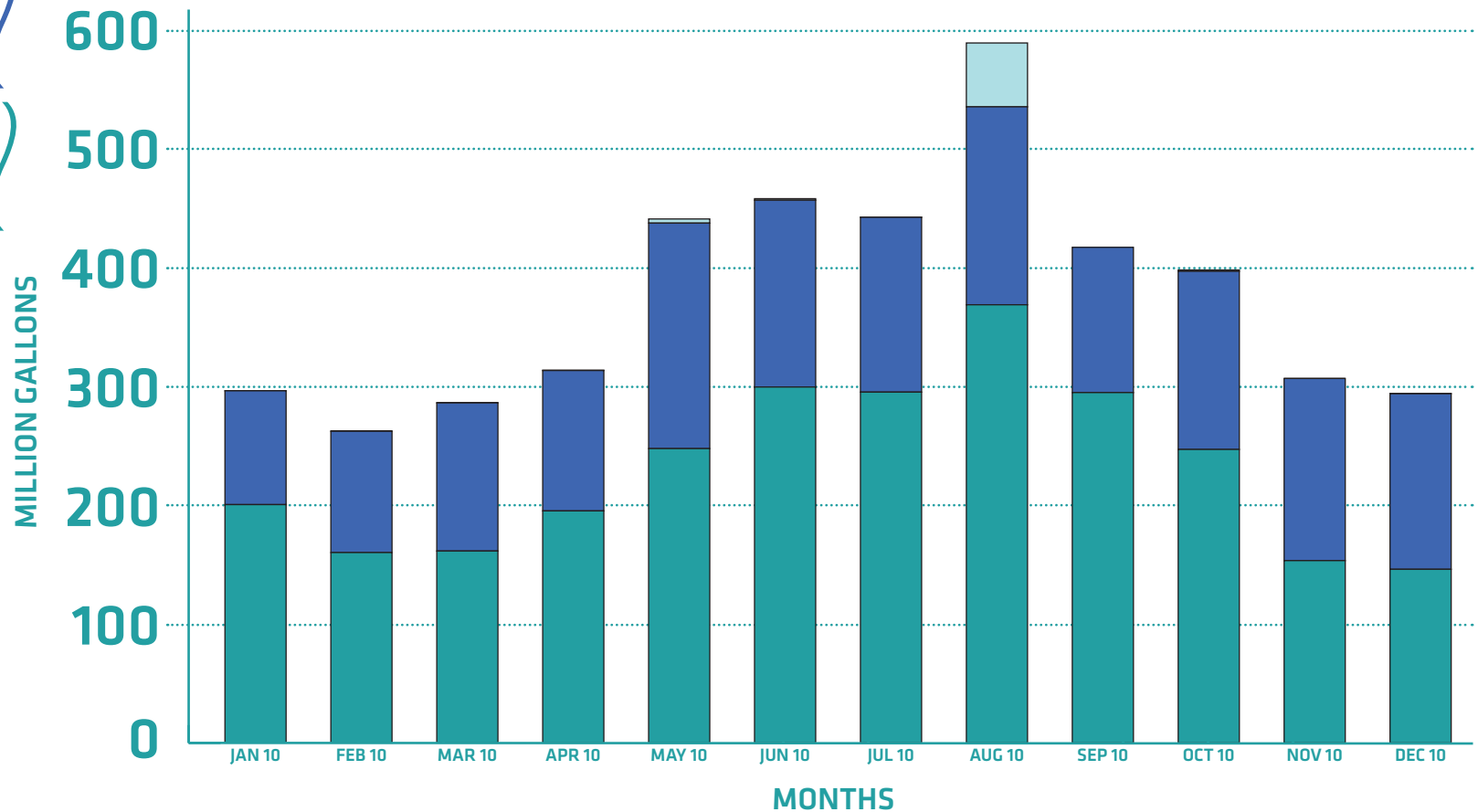
effort to reduce usage to within our allocation and to save allocation for the anticipated peak demand of the summer of 2011.

Our allocation from Lake Thunderbird is 8.4 million gallons per day. In 2010, we produced an average of 7.60 million gallons of water per day from Lake Thunderbird at our Water Treatment Plant., for an annual total of 2.774 billion gallons.

Our average production of well water was 4.43 million gallons per day in 2010. We produced a total of 1,616 million gallons of water from our wells in the Garber-Wellington Aquifer.

**MILLIONS  
OF GALLONS**

**BY MONTH  
- 2010 -**



# Detected Contaminants Table: (Water Wells)

Parameter	Well #3A	Well #1	Well #2	Well #5	Well #POE3	Well #6	Well #8	Well #19	Well #20	Well #31	Well #34	Well #35	Well #33	Well #36	Well #37	Well #38	Well #39	Well #40	Well # POE 2	Well # 41	Well # 42	Well #43	Well #44	Well #45	Well #46	Well #47	Well #48	Well #49
Nitrite-Nitrate level (ppm)	0.59	0.58	0.34	0.23	0.10	0.69	0.49	0.64	0.64	0.49	0.63	0.77	0.48	0.44	0.20	0.42	0.35	0.26	0.45	0.39	0.38	0.71	0.25	0.3	0.22	0.46	0.3	0.29
sample date	7/14/10	7/14/10	7/14/10	11/28/06	7/26/10	11/8/10	7/14/10	7/14/10	7/14/10	11/8/10	7/14/10	5/9/06	7/14/10	5/9/06	11/28/06	4/13/10	7/14/10	11/8/10	11/29/10	7/14/10	7/14/10	11/8/10	11/29/10	11/29/10	11/29/10	11/29/10	11/29/10	11/29/10
Fluoride level (ppm)		0.33	0.60	0.63	0.80	0.31	0.29	0.10	0.17	0.34	0.35	0.36		0.51	0.35	0.34	0.46	0.32									0.43	
sample date		4/24/05	4/21/05	4/20/05	11/8/10	4/20/05	4/20/05	4/28/05	4/21/05	4/24/05	4/21/05	4/24/05		4/21/05	4/21/05	4/20/05	4/21/05	4/20/05									11/8/10	
Barium level (ppb)		166	139	154	90	291	219	465	795	73	210	289	254	182	216	250	177	211	232	257	232	412	131	171	144	388	186	136
sample date		4/24/05	4/21/05	4/20/05	11/8/10	4/20/05	4/20/05	4/28/05	4/21/05	4/24/05	4/21/05	4/24/05	12/13/10	4/21/05	4/21/05	4/20/05	4/21/05	4/20/05	6/25/07	5/26/09	10/25/10	4/28/09	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10
Selenium level (ppb)										15				16			11										19	10
sample date										4/24/05				4/21/05			4/21/05										11/8/10	11/8/10
Arsenic level (ppb)	3.6		5.0	10		8.0	2.0	2.0		5.3			6.4	10			6.0			2.0					2.4		8.8	5.0
sample date	10/25/10		4/21/05	4/20/05		4/20/05	4/20/05	4/28/05		*			*	4/21/05			4/21/05			5/26/09					11/8/10		11/8/10	11/8/10
Chromium (ppb)	46	60	80	86		44	52	11	21	29	67	50	64	70	60	5.3	86	61	45	40	40		69	68	50	69	80	70
sample date	10/25/10	4/24/05	4/21/05	4/20/05		4/20/05	4/20/05	4/28/05	4/21/05	4/24/05	4/21/05	4/24/05	12/13/10	4/20/05	4/21/05	4/20/05	4/21/05	4/20/05	6/25/07	5/26/09	10/25/10		11/8/10	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10
Gross Alpha (pCi/L)	12	4.5	2.3	6.1	14	4.5	0.6	6.6		10.0	1.9	9.9	3.1	5.9	5.3	9.2	7.0	1.6	5.6		9.1	14	13	18	7.4	17	21	
sample date	12/14/10	*	*	*	*	*	*	2/21/11			*	*	*	*	*	*	*	12/10/09	*	2007		5/17/07	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10
Uranium (ppb)	12	18	22	12	12	9.7	9.8	11		8.7	4.8	5.4	13.6	6.4	10.3	4.5	5.0		2.7	4.5	1.5	5.6	5.0	7.8	1.9	14	10	
sample date	12/14/10	*	*	*	*	*	*	2/21/11		*	*	*	*	*	*	*	*	12/10/09		11/15/07	6/9/08	5/17/07	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10	11/8/10
*composite of 4 quarterly samples																												

Parameter	Units	MCLG	MCL	Major Sources in Drinking Water
Nitrite-Nitrate	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride – Total	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer
Barium – Total	ppb	2000	2000	Discharge from drilling wastes; discharge from metal refineries; erosion of natural deposits
Selenium – Total	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Arsenic – Total	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Chromium – Total	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
Lead	ppb	0	AL=15	Corrosion of household plumbing systems; erosion of natural deposits
Copper	ppm	1.3	10	Corrosion of household plumbing systems; erosion of natural deposits
Turbidity	NTU	NA	TT= >0.3 NTU in not more than 5% of samples	Soil runoff
Total Organic Carbon (TOC)	ppm		TT= ratio must be greater or equal to 1.00 for compliance	Naturally occurring
Gross Alpha	pCi/L	15	15	Decay of natural and man-made deposits.
Gross Beta	pCi/L	50	50	
Radium 226	pCi/L	5	5	
Total Trihalomethanes	ppb	0	80 (RAA)	By-product of drinking water chlorination.
Haloacetic Acid	ppb	0	60 (RAA)	By-product of drinking water chlorination.
Coliform Bacteria	CFU	0	presence of coliform bacteria in <5% of samples	Naturally present in the environment
MRDL				
Chloramine	ppm	none	4	Water additive used to control microbes
Source Water Assessment Plan (SWAP) - Qualitative Susceptibility Rating is Moderate				

2010 Detected Contaminants Table: (Distribution Systems and Water Treatment Plants)

Inorganic Components											
				Norman	Hefner PWSID 1020902	Draper PWSID 1020902B	Overholser PWSID 1020902C	University of Oklahoma	Major Source in Drinking Water	Compliance	
Parameter	Units	MCLG	MCL	WTP	WTP	WTP	WTP	Distribution System			
Bromate*	ppb	0	10 (RAA)	Testing is not required	AVERAGE			Testing is not required	Naturally occurring	Yes	
					5.4						
					RANGE						
					<5.0-14						
Fluoride	ppm	4	4	Testing performed 2010	Testing performed 2006			OU purchases water and therefore does not collect this type of data.	Added during treatment for dental health; dissolved from natural deposits	Yes	
				1.4	0.89	1.1	0.79				
Lead	ppb	0	AL=15	Dec '10-90th percentile <5.0	Sep-Oct '09 - 90th percentile 1.3			Sep '04.-90th percentile <5.0	Corrosion of household plumbing systems; erosion of natural deposits	Yes	
Copper	ppm	1.3	AL=1.3	Dec. '10-90th percentile 0.026	Sep-Oct '09 - 90th percentile 0.063			Sep '04-90th percentile 0.03	Corrosion of household plumbing systems; erosion of natural deposits	Yes	
Nitrate-Nitrite	ppm	10	10	0.23	0.20	0.15	0.20	OU purchases water and therefore does not collect this type of data.	Runoff from fertilizer; leaching from septic tanks or sewage; erosion from natural deposits	Yes	
Arsenic	ppb	0	10				2.1		Erosion of natural deposits; runoff from orchards; runoff from electronics and glass production wastes.	Yes	
Turbidity	NTU	NA	TT= >0.3 NTU in not more than 5% of samples	lowest monthly percentage <0.3 NTU					Soil runoff	Yes	
				100%	99%	100%	100%				
				Highest Single Measurement							
Total Organic Carbon (TOC)	ppm		TT= ratio must be greater or equal to 1.00 for compliance	0.29	1.3*****	0.37*****	0.28		Naturally occurring	Yes	
				1.2	1.8	0.35**	1.6				
Avg. Monthly Ratio =%TOC removal divided by %TOC removal required											
Radiological Components											
				Testing performed 2009	Testing performed 2006			OU purchases water and therefore does not collect this type of data.	Decay of natural and man-made deposits.	Yes	
Gross Alpha	pCi/L	15	15	0.965 +/-0.637	0.356 +/-0.247	8.36 +/-0.713					
Gross Beta	pCi/L	50	50	3.16 +/-1.48	6.31 +/-0.832	10.80 +/-1.23	6.02 +/-1.39				
Radium 226 & 228	pCi/L	5	5	0.285 +/-0.212	0.045 +/-0.185		0.346 +/-0.276				
Microbiological Components											
Coliform Bacteria	CFU	0	presence of coliform bacteria in <5% of samples	1 positive sample in October '10 (1.1% of monthly samples collected)	two positive samples in 2862 samples (0.07% for the year)			No positive samples in 2010	Naturally present in the environment	Yes	
LT2 Source Water Testing				Source Water Tested in the lowest risk category	Cryptosporidium: all source waters tested at <0.075 cysts/L (lowest risk category)	Cryptosporidium: all source waters tested at <0.075 cysts/L (lowest risk category)	Cryptosporidium: all source waters tested at <0.075 cysts/L (lowest risk category)	OU purchases water and therefore does not collect this type of data.	Human and Animal Waste.	EPA Required Source Water monitoring to test for presence of Cryptosporidium	
Disinfection By-Products											
Chloramine	ppm	none	MRDL	AVERAGE				Water additive used to control microbes	Yes		
			4	3.1	3.5****	3.6****	3.5****			2.1	
				RANGE							
				0.23-4.1	2.3-4.1	2.4-4.1	2.0-4.8			0.1-2.8	
Total Trihalomethanes	ppb	0	80 (RAA)	Highest Quarterly Average				By-product of drinking water chlorination.	Yes		
				47.8	7.8	62	53			5.2	
				Range							
				9.5-48	2.0-17	48-76	6.0-73			<4-6	
Haloacetic Acid	ppb	0	60 (RAA)	Highest Quarterly Average				By-product of drinking water disinfection.	Yes		
				21	25	30	21			9.7	
				Range							
				<6-21	<6.0-7.0	16-39	<6.0-38			<6-10	
Stage 2 Disinfection Byproducts Rule Monitoring***				Testing is not required	Trihalomethanes			Testing is not required	By-product of drinking water disinfection.	Yes	
					most recent system wide distribution testing 2010						
					Range Detected: 2-76 / System wide Avg: 40						
					Haloacetic Acids				By-product of drinking water disinfection.	Yes	
					most recent system wide distribution testing 2010						
					Range Detected: <6-39 / System wide Avg: 18						
* Bromate Health Note: Some people who drink water containing bromate in excess of the MCL over many years may have an increased risk of getting cancer.											
** Total Organic Carbon Note: Total organic carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the MCL (Maximum Contaminant Level) may lead to adverse health effects. TOC compliance is based on the percent TOC removed, not the total amount present. The starting TOC at the Draper Treatment facility is low, therefore, the potential for formation of THMs and HAAs is low. The THM and HAA values for the Draper Treatment facility are below the MCL, which is currently considered a safe level for these disinfection byproducts.											
*** Stage 2 Disinfection Byproducts Rule Monitoring: U.S. water utilities are required to continuously improve the quality of water delivered to customers. The Federal Environmental Protection Agency and the Oklahoma Department of Environmental Quality enforce drinking water laws and develop long-range improvement activities. In 2009, Oklahoma City collected information on how THMs and HAAs change the water system and will work with EPA and DEQ to decrease the numbers.											
****Chlorine: Compliance with the 4.0 mg/L MRDL is based upon an annual average; therefore, the MRDL does not apply to individual samples that are allowed to be higher than the MRDL.											
*****Turbidity (Hefner): The May 11, 2010, tornado in the Draper area and subsequent power outages caused water flow at the Hefner plant to increase significantly. This increased water flow caused sediment to be stirred up in the stored water at Hefner. During this period the turbidity exceeded 0.3 NTU for slightly over one hour and peaked at 1.32 NTU. At no time during this period did the combined filter effluent turbidity exceed 0.3 NTU. (Draper): On one occasion the water flow to the distribution system exceeded 0.3 NTU for 55 minutes, which was 0.1% of samples. Draper Plant was in compliance with the clarity/turbidity requirement of not exceeding 0.3 NTU in more than 5% of samples.											
Public Notice of Violation for 2010											
Parameter		Required sampling frequency			Cause of Violation						
Total Coliform		90 sample per month			88 samples were collected in the month of October 2010.						